

From: Rettmann, Mark
To: [David Hirsh - NOAA Federal](#); [Olivia H. Romano \(olivia.h.romano@usace.army.mil\)](#); [Cook, Cyrilla \(DNR\) \(Cyrilla.Cook@dnr.wa.gov\)](#); [Callender, Alexander \(ECY\) \(acal461@ECY.WA.GOV\)](#); [Bill Sullivan](#); [Storm, Linda](#); [Shandra Ohaleck - NOAA Affiliate](#); [Brenner, Shannon \(SBrenner@ci.tacoma.wa.us\)](#); [Kluge, Karla](#); [ssisson@co.pierce.wa.us](#); [OLMSTED, DONALD \(DNR\) \(DONALD.OLMSTED@dnr.wa.gov\)](#); [Russ.Ladley@puyalluptribe.com](#); [Thompson, Kate \(ECY\) \(kath461@ecy.wa.gov\)](#); [Gail.M.Terzi@usace.army.mil](#); [Owens, Kim](#); [Tina Tong - US ACOE \(Kristina.G.Tong@USACE.Army.mil\)](#); [Matt Curtis \(Matthew.Curtis@dfw.wa.gov\)](#); [Pongkhamsing, Chan](#); [Warfield, Tony](#); [Myers, David](#); [Kris Lepine \(klepine@herrerainc.com\)](#); [Derrick Eberle \(deberle@bdassociates.com\)](#); [Ian Mostrenko \(imostrenko@herrerainc.com\)](#); [Pongkhamsing, Chan](#); [Joe Brogan \(BrogJ@foster.com\)](#); [Shawn Mahugh](#)
Subject: FW: Final Memos for 2015 Planting Revisions & Post-Construction Hydrology - UCCMS
Date: Monday, November 09, 2015 1:07:51 PM

All,

FYI regarding comments from EPA and the Bank Co-Chairs based on the latest memos and our October 28, 2015 meeting.

Regards,
Mark

-----Original Message-----

From: Terzi, Gail M NWS [<mailto:Gail.M.Terzi@usace.army.mil>]
Sent: Monday, November 09, 2015 11:43 AM
To: Rettmann, Mark <MRettmann@portoftacoma.com>; Pongkhamsing, Chan <Pongkhamsing.Chan@epa.gov>
Cc: Owens, Kim <Owens.Kim@epa.gov>; kate.thompson@ecy.wa.gov; Storm, Linda <Storm.Linda@epa.gov>; Thiesing, Mary <Thiesing.Mary@epa.gov>; Tong, Kristina G NWS <Kristina.G.Tong@usace.army.mil>; Romano, Olivia H NWS <Olivia.H.Romano@usace.army.mil>
Subject: hRE: Final Memos for 2015 Planting Revisions & Post-Construction Hydrology - UCCMS

Hi Mark - Kate and I have reviewed the observations made by Mary Ann Thiesing from EPA and agree with her comments and recommendations as outlined below. Most of the comments are relevant to the entire site, inclusive of the EPA settlement and bank areas. We also believe, based on our observations that the under planting enhancement activities within the PFO/PSS areas on the bank site would benefit the site as a whole and improve structure and function within those existing systems. We would add, if appropriate, that the Port should consider phase planting some of the replacement species which may be sensitive to direct sunlight. Having some shade established and continuing to irrigate if we experience another hot and droughty summer, would likely benefit survival rates of replanted species. In addition, we strongly suggest that irrigation only be used under dire circumstances, as we experienced this past summer, to avoid plants being pampered too much - most of the plants should be able to adapt to droughty conditions without irrigation after the first couple of seasons.

We still need to discuss the buffer issues with the site and are awaiting additional information from you. Kate and I are planning on submitting our comments on Appendices A and B in the near future, so that you can make any relevant revisions and send those appendices of the MBI to the entire IRT for review and comment. Please make sure that Chan and my emails get distributed to the entire IRT so they can be kept in the loop as we coordinate the outstanding issues and continue to process the bank. This will be especially important to those IRT members who were unable to make our meeting on October 28, 2015, most notably the Puyallup Tribe. Thanks, Gail

Gail Terzi
Senior Scientist/Mitigation Program Manager Seattle District Corps of Engineers, Regulatory Branch
(206) 764-6903
gail.m.terzi@usace.army.mil

-----Original Message-----

From: Rettmann, Mark [<mailto:MRettmann@portoftacoma.com>]
Sent: Monday, November 09, 2015 10:27 AM

To: Pongkhamsing, Chan <Pongkhamsing.Chan@epa.gov>
Cc: Owens, Kim <Owens.Kim@epa.gov>; Terzi, Gail M NWS <Gail.M.Terzi@usace.army.mil>;
kate.thompson@ecy.wa.gov; Storm, Linda <Storm.Linda@epa.gov>; Thiesing, Mary <Thiesing.Mary@epa.gov>;
Tong, Kristina G NWS <Kristina.G.Tong@usace.army.mil>; Romano, Olivia H NWS
<Olivia.H.Romano@usace.army.mil>
Subject: [EXTERNAL] RE: Final Memos for 2015 Planting Revisions & Post-Construction Hydrology - UCCMS

Chan,

Thanks for the response. Just FYI, I'll be on vacation starting tomorrow through 11/16.

Regards,

Mark

From: Pongkhamsing, Chan [<mailto:Pongkhamsing.Chan@epa.gov>]
Sent: Friday, November 06, 2015 4:17 PM
To: Rettmann, Mark <MRettmann@portoftacoma.com>
Cc: Owens, Kim <Owens.Kim@epa.gov>; Terzi, Gail M NWS <Gail.M.Terzi@usace.army.mil>;
kate.thompson@ecy.wa.gov; Storm, Linda <Storm.Linda@epa.gov>; Thiesing, Mary <Thiesing.Mary@epa.gov>;
Tong, Kristina G NWS <Kristina.G.Tong@usace.army.mil>; Romano, Olivia H NWS
<Olivia.H.Romano@usace.army.mil>
Subject: RE: Final Memos for 2015 Planting Revisions & Post-Construction Hydrology - UCCMS

Hi Mark,

EPA plans to follow this email with a formal memo... in the interest of time, we wanted to get these comments to you now.

The following observations made by EPA Wetland Scientist, Mary Anne Thiesing, were generally concurred by some of the members of the IRT; however, the IRT may have its own comments and these comments are not intended in any way to supersede or eliminate any comments or recommendations they may have. IRT co-chairs, Gail Terzi and Kate Thompson, as well as Linda Storm are copied on this email to ensure appropriate coordination and minimize duplication of effort.

In general, the Port has done a good job managing the site, and with the exceptions noted below, EPA concurs with their analyses and proposed changes.

The following observations are pertinent to the EPA Settlement Area identified by the maps attached as part of the CD.

1. Site Progress. The site appears to be developing well; the grading and placement of woody debris and wood structures appear to be consistent with the plan. The areas which were seeded seem to be vegetating well, and the preservation and re-planting of large trees appears to have resulted in successful establishment of large structure. There is an area where existing peat appears to have had a viable seed bank and which is re-vegetating with a mix of native species. This area should continue to be monitored to avoid re-invasion of reed canary grass, which had formed a monoculture over much of the site prior to implementation of the mitigation plan. In addition, there are areas near the EPA Settlement Area which have cattail establishing, in some small areas, rather densely. Due to lack of flowering heads, I was unable to determine whether these were *Typha latifolia* (native), *Typha angustifolia* (non-native) or *Typha X glauca*, which is a hybrid of the two and highly invasive. These areas should also be carefully monitored to ensure that any invasive stands of cattail do not establish.

The container plants which were planted during 2015 were irrigated during the unusually hot, dry summer; as a result, they are growing well and appear largely to be healthy and establishing as proposed. The exception to this were the plantings of lady fern, *Athyrium filix-femina*, which appeared burned, likely due to exposure to full sun. This is a shade-loving fern, and the Port has proposed relocating those plantings to areas which currently have shade. I concur with the Port's findings, and their proposed solution.

2. Hydrology and adjustment of zones The hydrology which was modeled for the site, and on which the water elevations developed for the proposed wetland and floodplain zones, was determined in 2015 to be approximately 1 foot higher, possibly due to a large area of *Elodea canadensis* which became so dense that it covered the entire channel and restricted water flow downstream of the site, resulting in a backwater on site which persisted much longer than the original design intended. The Port, with its consultants, has re-delineated the different zones of the UCC site to identify where wetter conditions are likely to occur if the bloom conditions recur. The Port has also proposed adjusting plantings to incorporate species with higher wetness tolerance in those expanded wet zones.

The issue with such changes is that if the bloom of *E. canadensis* is not a recurring event, those areas may well be drier and closer to the original design conditions than the current model indicates. As such, there could be a risk of plant species dying off without longer duration flooding. The Port acknowledged this point, but indicated that the species it proposes for the wetter zones would comprise species with a wide wetness tolerance, and would also comprise mix of species with difference tolerances for wetness, in order to ensure that the community would be resilient to changing hydrologic conditions. This seems to be a reasonable way to address the uncertainty inherent with the possibility of the fluctuating summer water levels, and maximize the opportunity for successful vegetative cover establishment.

3. Replacement/substitution of plant species

A number of plant species were unavailable either as seeds or as container plants due to poor success generally among the nurseries in the prior growing season and/or inability to secure contract growers for those species in question to ensure delivery in a timely fashion. The following substitutions have been proposed:

Beaked sedge (*Carex utricularis*) replaced by Kellogg's sedge (*Carex lenticularis*)

Pacific blackberry (*Rubus ursinus*) with sword fern (*Polystichum munitum*)

The substitution of Kellogg's sedge is unlikely to have any adverse effect on the plant community targets and goals,

since *C. lenticularis* is native to the Pacific trough and is found throughout the region as a native component of emergent wetlands. However, sword fern, which is also native, is unlikely to serve the same purpose as the plant which it is proposed to replace, viz., Pacific blackberry. Sword fern is resilient and a common component of upland forest buffers in the Pacific northwest; however, it is less resilient to invasion and would not provide food sources for wildlife in the way that Pacific blackberry does. The Port has been diligent about locating additional Pacific blackberry plants; however, if a substitution is needed, I would recommend using another food-producing plant such as salmonberry or thimbleberry which may be more readily available and, while not of the same trailing habit, would still serve similar purposes as Pacific blackberry on the landscape.

Respectfully,

Chan Pongkhamsing

CWA 404 Enforcement Coordinator

Office of Ecosystems, Tribal and Public Affairs

U.S. EPA, Region 10

1200 Sixth Avenue, Mail Stop ETPA-202-2

Seattle, Washington 98101-3140

(206) 553-1806

From: Rettmann, Mark [<mailto:MRettmann@portoftacoma.com>]

Sent: Thursday, November 05, 2015 9:35 AM

To: Olivia H. Romano (olivia.h.romano@usace.army.mil <<mailto:olivia.h.romano@usace.army.mil>>); Cook, Cyrilla (DNR) (Cyrilla.Cook@dnr.wa.gov <<mailto:Cyrilla.Cook@dnr.wa.gov>>); Callender, Alexander (ECY) (acal461@ECY.WA.GOV <<mailto:acal461@ECY.WA.GOV>>); Bill Sullivan; Storm, Linda; Shandra Ohaleck - NOAA Affiliate; Brenner, Shannon (SBrenner@ci.tacoma.wa.us <<mailto:SBrenner@ci.tacoma.wa.us>>); Kluge, Karla; ssisson@co.pierce.wa.us <<mailto:ssisson@co.pierce.wa.us>> ; OLMSTED, DONALD (DNR) (DONALD.OLMSTED@dnr.wa.gov <<mailto:DONALD.OLMSTED@dnr.wa.gov>>); Russ.Ladley@puyalluptribe.com <<mailto:Russ.Ladley@puyalluptribe.com>> ; Thompson, Kate (ECY) (kath461@ecy.wa.gov <<mailto:kath461@ecy.wa.gov>>); Gail.M.Terzi@usace.army.mil <<mailto:Gail.M.Terzi@usace.army.mil>> ; Owens, Kim; Tina Tong - US ACOE (Kristina.G.Tong@USACE.Army.mil <<mailto:Kristina.G.Tong@USACE.Army.mil>>); Matt Curtis (Matthew.Curtis@dfw.wa.gov <<mailto:Matthew.Curtis@dfw.wa.gov>>); Pongkhamsing, Chan; Warfield, Tony; Myers, David; Kris Lepine (klepine@herrerainc.com <<mailto:klepine@herrerainc.com>>); Derrick Eberle (deberle@bdassociates.com <<mailto:deberle@bdassociates.com>>); Ian Mostrenko (imostrenko@herrerainc.com <<mailto:imostrenko@herrerainc.com>>); Pongkhamsing, Chan; Joe Brogan (BrojJ@foster.com <<mailto:BrojJ@foster.com>>); Shawn Mahugh

Subject: Final Memos for 2015 Planting Revisions & Post-Construction Hydrology - UCCMS

All,

Attached are the final memos that we presented at last week's meeting. The only change was removing "draft" from the memos as there was no substantial comments on the memo content itself.

For those that haven't done so already, please send a quick email or a letter approving the Port to proceed with construction (planting) based on these memos.

Thanks in advance,

Mark

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